

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
MAINE WASTE DISCHARGE LICENSE**

FACT SHEET

**Prepared Jointly by the Maine Department of Environmental Protection and
The U.S. Environmental Protection Agency – New England Office**

Date: August 27, 2007

**PERMIT NUMBER: ME0101664
LICENSE NUMBER: W002573-5L-E-R**

NAME AND ADDRESS OF APPLICANT:

**BAYVILLE VILLAGE CORPORATION
Publicly Owned Treatment Works
12 Roberts Circle
Boothbay Harbor, Maine 04538**

COUNTY: Lincoln County

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

**Bayville Village Corporation
10 Briggs Lane
Boothbay Harbor, Maine 04538**

RECEIVING WATER/CLASSIFICATION: Linekin Bay/Class SB

COGNIZANT OFFICIAL AND TELEPHONE NUMBER:

**Mr. Chris Higgins
Contract Operator
(207) 633-4663**

1. APPLICATION SUMMARY

- a. Application - The Bayville Village Corporation (BVC) has applied for renewal of its combined Section 301(h) Modified National Pollutant Discharge Elimination System (NPDES) permit #ME0101664 and Maine Waste Discharge License (WDL) #W002573-58-C-R, which was issued on March 12, 2002 and expired on March 12, 2007. The permit/license (permit hereinafter) approved the discharge of 0.015 million gallons per day (MGD) of primary treated sanitary wastewater to Linekin Bay, Class SB, in Boothbay Harbor, Maine. See Attachment A of this Fact Sheet for a location map.

1. APPLICATION SUMMARY

- b. Source Description: The BVC sewer system serves a small seasonal residential community of 25 houses.
- c. Waste Water Treatment: The BVC waste water treatment facility provides a primary level of treatment via a series of septic tanks, and disinfection via chlorination and dechlorination prior to discharge. Sanitary wastewater from twelve (12) residences flows by gravity to a 3,000-gallon septic tank which in turn is pumped to the first of two 6,000-gallon tanks set up in series. Thirteen (13) additional residences are tied into the first 6,000-gallon tank and then the combined waste streams are conveyed to the second 6,000-gallon tank for additional settling. The waste waters are disinfected in a chlorine contact tank using a flow based chemical feed of sodium hypochlorite. Sodium bisulfite is currently utilized to dechlorinate the effluent prior to discharge to Linekin Bay via a polyvinylchloride (PVC) outfall pipe measuring four inches in diameter that extends out into the receiving water approximately 100 feet. The outfall pipe is submerged in 8-feet of water at mean low tide. See Attachment B of this Fact Sheet for a schematic of the waste water treatment facility.

2. PERMIT SUMMARY

- a. Regulatory - On January 12, 2001, the State of Maine received authorization from the EPA to administer the NPDES program in Maine. Section 301(h) of the Clean Water Act provides a vehicle by which a permittee may request a variance from secondary treatment requirements. Issuance of a permit granting such a variance may only be issued by the EPA as authorization to do so was not granted to the State of Maine on January 12, 2001. See section 2(c) of this Fact Sheet. In addition, pursuant to Maine law, anyone discharging pollutants to waters of the State must obtain a license to do so. Therefore, this document serves as a combined NPDES permit and a Maine WDL to satisfy both federal and State requirements.
- b. Terms and conditions - This permitting action is similar to the previous permitting action in that it carries forward;
 - 1. The monthly average flow limitation of 0.015 MGD.
 - 2. The monthly average technology based requirements to achieve a minimum of 30% removal of biochemical oxygen demand (BOD) and a minimum of 50% removal for total suspended solids (TSS).
 - 3. The monthly average technology based mass limitations for BOD and TSS.
 - 4. The daily maximum concentration reporting requirement for settleable solids.

2. PERMIT SUMMARY (cont'd)

5. The monthly average (geometric mean) and daily maximum water quality based concentration limits of 15 colonies/100 ml and 50 colonies/100 ml for fecal coliform bacteria.
6. The daily maximum technology based concentration limit of 1.0 mg/L for total residual chlorine.
7. The technology based pH range limitation of 6.0 -9.0 standard units.

This permitting action is different than the previous permitting action in that it is;

8. Eliminating the monthly average concentration reporting requirement for settleable solids and reducing the monitoring frequency from 3/Week to 1/Month.
9. Modifying the footnote for test methods required for total residual chlorine.
10. Requiring the permittee to maintain an up-to-date Operations and Maintenance (O&M) plan.

c. History: The most recent permitting/licensing actions include the following:

December 27, 1978 – The Department issued WDL #2573 to the BVC for a five-year term. The WDL conditionally authorized the discharge of untreated sanitary waste waters to the tidewaters of Boothbay Harbor.

December 20, 1982 – The BVC submitted an application to the EPA seeking a variance from secondary treatment requirements (primary treatment only) of the Clean Water Act pursuant to Section 301(h) of said Act.

August 24, 1983 – The Department issued a five-year renewal of WDL #2573 which authorized the continued discharge of untreated sanitary waste waters to the tidewaters of Boothbay Harbor.

December 4, 1985 – The EPA approved the request for a variance from secondary treatment requirements for the discharge pursuant to Section 301(h) of the CWA.

March 28, 1986 – The EPA issued NPDES permit #ME0101664 for a five-year term. The permit authorized the discharge of untreated sanitary waste waters with a deadline of July 1, 1988 to construct a primary waste water treatment facility.

November 4, 1991 – The Department issued WDL #W002573-58-A-R for five-year term. The WDL contained effluent limitations consistent with primary treatment of sanitary waste water and consistent with those established in the 3/28/86 NPDES permit.

2. PERMIT SUMMARY (cont'd)

January 26, 1996 - The Department issued a renewal of WDL #W002573-59-B-R for a five-year term.

January 12, 2001 – The Department received authorization from the EPA to administer the NPDES program in Maine, however, the authority to grant a variance from secondary treatment requirements pursuant to Section 301(h) of the CWA was not granted to the State of Maine.

February 28, 2002 – The Department issued a Section 401 Water Quality Certification to EPA indicating that the proposed primary treatment discharge would not cause or contribute to failure of the water body to attain the standards of its assigned classification.

March 12, 2002 – The Department and EPA issued a combined WDL and NPDES permit (#W002573-5L-C-R and ME0101664) authorizing the discharge of primary treated waste water from the BVC facility.

December 1, 2006 – The BVC submitted an application to the Department and EPA for renewal of the March 12, 2002 license/permit. The Department accepted the application for processing on December 4, 2006.

3. CONDITIONS OF PERMITS

Maine law, 38 M.R.S.A. Section 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, 38 M.R.S.A., Section 420 and Department rule 06-096 CMR Chapter 530, *Surface Water Toxics Control Program*, require the regulation of toxic substances not to exceed levels set forth in Department rule 06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER QUALITY STANDARDS

Maine law, 38 M.R.S.A., Section 469 classifies the receiving waters at the point of discharge as Class SB waters. Maine law, 38 M.R.S.A., Section 465-B(2) contains the classification standards for Class SB waters. Federal regulation 40 CFR, Part 125, Subpart G, more specifically Part 125.57(a)(2), states that discharge of pollutants in accordance with such modified requirements [301(h)] will not interfere, alone or in combination with pollutants from other sources, with the attainment or maintenance of that water quality which assures protection of public water supplies and protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife, and allows recreational activities in and on the water.

5. RECEIVING WATER QUALITY CONDITIONS

The State of Maine 2004 Integrated Water Quality Monitoring and Assessment Report, prepared by the Department pursuant to Sections 303(d) and 305(b) of the Federal Water Pollution Control Act, indicates that the Maine Department of Marine Resources (DMR) shellfish Area #23, Boothbay Harbor - Damariscotta Island Area, is closed to the harvesting of shellfish. See Attachment C of this Fact Sheet for the delineation of Area #23. The DMR has traditionally closed shellfish harvesting areas in the vicinity of outfall pipes when lack of field data on bacteria counts in the immediate area is insufficient, inconclusive or exceeds standards set in the National Shellfish Sanitation Program of the U.S. Department of Health and Human Services. DMR does not have sufficient field data for Area #23 to open it at this time.

The 1985 301(h) permits issued in Maine required each permittee to perform biological monitoring in the vicinity of its discharge, including inspections by underwater divers (“SCUBA inspections”). Based on concerns from many of the 301(h) permittees, MEDEP and EPA later agreed that SCUBA inspections were too dangerous because of swift currents in the vicinity of most outfalls and did not require that they be performed. Instead, in 1995 EPA and MEDEP participated in remote inspections (using TV cameras) and water quality monitoring programs at selected 301(h) discharge sites. Based on these surveys, MEDEP prepared a report in July 1996 titled 301(h) Facilities in Maine, Report of 1995 Monitoring Activities which concluded that “water quality, sediment, and photographic information indicates that these [301(h)-type] discharges are not causing any significant impact to the receiving waters”. By letter dated February 17, 1995, the Regional Administrator of EPA Region I agreed that there would be little risk of adverse impacts to the receiving water from these discharges provided that the permittees performed effluent monitoring as part of the regular permit conditions. The proposed draft NPDES permit includes such effluent monitoring.

All estuarine and marine waters in Maine are listed in a table entitled, *Category 4-B-3: Estuarine and Marine Waters Impaired by Atmospheric Deposition of Mercury* of the aforementioned 305(b) report. Text in this category states that all waters in the category are only partially supporting fishing (fish and shellfish consumption) due to elevated levels of mercury, PCBs and dioxin in tissues of some fish and lobster tomally. The Department is not aware of any information that the BVC waste water treatment facility is discharging PCBs or dioxin that may be causing or contributing to the partial non-attainment. As for mercury, Department rule Chapter 519, *Interim Effluent Limitations and Controls for the Discharge of Mercury*, establishes controls on the discharge of mercury to the surface waters of the State through interim effluent limits and implementation of pollution prevention plans.

6. WAIVER OF SECONDARY TREATMENT REQUIREMENTS

Under Section 301(b)(1)(B) of the Clean Water Act (CWA), publicly owned treatment works (POTWs) were required to meet effluent limitations based on secondary treatment, which is defined in terms of the parameters BOD, TSS and pH by July 1, 1977. National effluent limitations for these pollutants were promulgated and included in POTW permits issued under Section 402 of the CWA.

Congress subsequently amended the CWA, adding Section 301(h), which authorizes the EPA Administrator, with State concurrence, to issue NPDES permits which modify the secondary treatment requirements with respect to the discharge of pollutants from a POTW discharging into marine waters, provided that the applicant meets several conditions.

EPA issued a 301(h) waiver to the BVC on December 4, 1985 based upon the following findings:

- That the discharge will comply with the State of Maine water quality standards for dissolved oxygen and suspended solids.
- That the proposed discharge will not adversely impact public water supplies or interfere with the protection and propagation of a balanced indigenous population of marine life and will allow for recreational activities.
- That no industrial wastes are discharged into the collection system.
- That the discharge will not result in an additional treatment requirements on other point and non-point sources.
- That the State of Maine concurs with the approval of the 301(h) waiver.

Federal regulation 40 CFR, Part 125, Subpart G, more specifically Part 125.57(a)(3), states that the applicant must establish a system for monitoring the impact of such discharge on a representative sample of aquatic biota, to the extent practicable, and the scope of such monitoring is limited to include only those scientific investigations which are necessary to study the effects of the proposed discharge. EPA has made a determination that the scope of effluent limitations and monitoring requirements in Special Condition A(1) of this permit are sufficient to provide the necessary information to study the effects of the discharge on the receiving waters.

Because all of the prior 301(h) conditions have been maintained and because there has been no new or substantially increased discharge from the BVC facility, EPA proposes, through the reissuance of the BVC permit, to carry forward the original 301(h) waiver decision.

7. ENDANGERED SPECIES ACT

Purpose: Section 7(a)(2) of the Endangered Species Act (ESA) requires federal agencies to ensure, in consultation with the Services, that actions an agency authorizes, funds or carries out are not likely to jeopardize the continued existence of federally listed endangered and threatened species, or result in the destruction or adverse modification of listed species' designated critical habitat. EPA believes that Section 7(a)(2) of the Endangered Species Act applies when EPA carries out actions approving State or Tribal water quality standards and NPDES permitting programs under the CWA.

ESA Designation: On November 17, 2000, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service listed wild Atlantic Salmon in eight Maine rivers as endangered. Those eight rivers are the Dennys, East Machias, Machias, Pleasant, Narraguagus, Ducktrap, and Sheepscot Rivers and Cove Brook. Renewal of the BVC's NPDES permit would allow the continuation of the discharge of primary treated wastewaters to the coastal waters of Linekin Bay approximately eight miles from the Sheepscot River estuary.

ESA Determination: Because of the low flow volume of the discharge and because the wastewaters are not known to contain pollutants at concentrations which could be toxic to aquatic life, and because the discharge is not released directly to a Maine DPS Atlantic Salmon River, EPA has determined that the action of renewal of the existing NPDES permit for the discharge of treated domestic waste water is not likely to jeopardize the continued existence of listed endangered species or result in the destruction or adverse modification of habitat that has been designated as critical for listed endangered species.

8. EFH (ESSENTIAL FISH HABITAT) DETERMINATION

Under the 1996 Amendments (PL 104-267) to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 et seq. (1998)), EPA is required to consult with the National Marine Fisheries Services (NMFS) if EPA's action or proposed actions that it funds, permits, or undertakes, "may adversely impact any essential fish habitat." 16 U.S.C. § 1855(b). The Amendments broadly define "essential fish habitat" as: "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. 16 U.S.C. § 1802 (10). Adversely impact means any impact which reduces the quality and/or quantity of EFH. 50 C.F.R. § 600.910 (a). Adverse effects may include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey, reduction in species' fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions. Essential fish habitat is only designated for species for which federal fisheries management plans exist. 16 U.S.C. § 1855(b) (1) (A). EFH designations for New England were approved by the U.S. Department of Commerce on March 3, 1999.

National Marine Fisheries Service designation of Essential Fish Habitat for the 10 minute square that includes the Bayville Village discharge (N43° 51.46', W69° 36.10')

Name of Estuary/ Bay/ River: Damariscotta River, Maine; 10' x 10' latitude and longitude squares included in this bay or estuary or river (southeast corner boundaries): 43° 50' North, 69° 30' West

8. EFH (ESSENTIAL FISH HABITAT) DETERMINATION (cont'd)

Species and Life Stage Designation

Species	Eggs	Larvae	Juveniles	Adults	Spawning Adults
Atlantic Salmon (<i>Salmo salar</i>)					
Atlantic cod (<i>Gadus morhua</i>)			S	S	
haddock (<i>Melanogrammus aeglefinus</i>)					
pollock (<i>Pollachius virens</i>)			M, S	S	
whiting (<i>Merluccius bilinearis</i>)			M, S	M, S	
offshore hake (<i>Merluccius albidus</i>)					
red hake (<i>Urophycis chuss</i>)			M, S	S	
white hake (<i>Urophycis tenuis</i>)			X	X	
redfish (<i>Sebastes fasciatus</i>)	n/a				
witch flounder (<i>Glyptocephalus cynoglossus</i>)					
winter flounder (<i>Pleuronectes americanus</i>)	M, S	M, S	M, S	M, S	M, S
yellowtail flounder (<i>Pleuronectes ferruginea</i>)	S	S			
windowpane flounder (<i>Scophthalmus aquosus</i>)	M, S	M, S	M, S	M, S	M, S
American plaice (<i>Hippoglossoides platessoides</i>)	S	S	M.S	S	S
ocean pout (<i>Macrozoarces americanus</i>)	S	S	S	S	S
Atlantic halibut (<i>Hippoglossus hippoglossus</i>)	S	S	S	S	S
Atlantic sea scallop (<i>Placopecten magellanicus</i>)	S	S	S	S	S
Atlantic sea herring (<i>Clupea harengus</i>)		M, S	M, S	M, S	
monkfish (<i>Lophius americanus</i>)					
bluefish (<i>Pomatomus saltatrix</i>)			M, S	M, S	
long finned squid (<i>Loligo pealei</i>)	n/a	n/a			
short finned squid (<i>Illex illecebrosus</i>)	n/a	n/a			
Atlantic butterflyfish (<i>Peprillus triacanthus</i>)					
Atlantic mackerel (<i>Scomber scombrus</i>)			M, S	M,S	
summer flounder (<i>Paralichthys dentatus</i>)					
scup (<i>Stenotomus chrysops</i>)					
black sea bass (<i>Centropristus striata</i>)					
surf clam (<i>Spisula solidissima</i>)	n/a	n/a			
ocean quahog (<i>Artica islandica</i>)	n/a	n/a			
spiny dogfish (<i>Squalus acanthias</i>)	n/a	n/a			
tilefish (<i>Lopholatilus chamaeleonticeps</i>)					
bluefin tuna (<i>Thunnus thynnus</i>)					

Based on the low volume of the discharge and the lack of toxic potential of waste water discharged, EPA has determined that a formal EFH consultation with NMFS is not required because the proposed discharge will not adversely impact EFH.

9. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

Maine Law 38 M.R.S.A., Section 414-B states a "*publicly owned treat works*" (POTW) means any facility for the treatment of pollutants owned by the State or any political subdivision thereof, any municipality, district, quasi-municipal corporation or other public entity." The BVC is a quasi-municipal corporation; therefore, BVC's waste water system is considered a POTW.

- a. Flow – The previous permit contained a monthly average flow limitation of 0.015 million gallons per day (MGD). The limitation is being carried forward in this permitting action but is being expressed as 15,000 gallons per day (gpd) rather than MGD. The limit was proposed by the permittee in 1982 when it submitted the application to the EPA for a variance from secondary treatment requirements. A review of the seasonal (April – October) DMR data for the period calendar years 2002-2006 inclusively, indicates the monthly average flow discharged has ranged from 0.00107 MGD (1,070 gpd) to 0.00607 MGD (6,070 gpd) with an arithmetic mean of 0.00309 MGD (3,090 gpd).
- b. Dilution Factors: Department Regulation Chapter 530 Surface Water Toxics Control Program, §4(a)(2) states:
 - (1) *For estuaries where tidal flow is dominant and marine discharges, dilution factors are calculated as follows. These methods may be supplemented with additional information such as current studies or dye studies.*
 - (a) *For discharges to the ocean, dilution must be calculated as near-field or initial dilution, or that dilution available as the effluent plume rises from the point of discharge to its trapping level, at mean low water level and slack tide for the acute exposure analysis, and at mean tide for the chronic exposure analysis using appropriate models determined by the Department such as MERGE, CORMIX or another predictive model.*
 - (b) *For discharges to estuaries, dilution must be calculated using a method such as MERGE, CORMIX or another predictive model determined by the Department to be appropriate for the site conditions.*
 - (c) *In the case of discharges to estuaries where tidal flow is dominant and marine waters, the human health criteria must be analyzed using a dilution equal to three times the chronic dilution factor.*

9. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

Using plan and profile information previously submitted to the Department, the Department has determined the dilution factors for the discharge of 0.015 MGD from the waste water treatment facility are as follows:

Acute = 250:1 Chronic = 730:1 Harmonic mean = 2190⁽¹⁾

(1) Pursuant to Department rule Chapter 530, "*Surface Water Toxics Control Program*", §4(2)(c), the harmonic mean dilution factor is approximated by multiplying the chronic dilution factor by a factor of three (3).

- b. Biochemical oxygen demand (BOD) and total suspended solids (TSS) - Federal regulations state that primary or equivalent treatment means treatment by screening, sedimentation, and skimming adequate to remove at least thirty percent (30%) of the BOD and 30% of the TSS material in the treatment works influent. The Department considers a thirty percent (30%) removal of BOD and a fifty percent (50%) removal of TSS from the influent loading as a best professional judgment (BPJ) determination of best practicable treatment (BPT) for primary facilities. These percent removal requirements were established in the previous permitting action and are being carried forward in this permitting action as the percent removal is the foundation for the permitting of 301h facilities. Due to the configuration of the treatment system, the BVC does not have an acceptable influent sampling port making the calculation for percent removal difficult. In the event the treatment facility is upgraded in the future, the permittee shall consider providing for a sampling port prior to the waste water entering the septic tanks.

The previous permit established monthly average technology based mass and concentration limits for BOD and TSS with a monitoring frequency of 1/Month. The limitations were calculated based on an assumed influent concentration of 290 mg/L for each parameter and a 30% removal for BOD and a 50% removal for TSS. This assumed influent concentration value is based on the EPA Design Manual, Onsite Wastewater Treatment and Disposal Systems, dated October 1980, table 4-3 entitled "Characteristics of Typical Residential Wastewater" high range of values for BOD5 and TSS. Derivation of the limits is as follows:

$$\begin{aligned}\text{BOD: } & 290 \text{ mg/L} - [(290 \text{ mg/L})(0.30)] = 203 \text{ mg/L} \\ & (203 \text{ mg/L})(8.34)(0.0150 \text{ MGD}) = 25 \text{ lbs/day}\end{aligned}$$

A review of the seasonal (April – October) DMR data for the period calendar years 2002-2006 inclusively, indicates the monthly average concentration of BOD discharged has ranged from 40 mg/L to 203 mg/L with an arithmetic mean of 154 mg/L. As for the monthly average mass of BOD discharged, the DMR data indicates the range has been from 0.43 lbs/day to 11 lbs/day with an arithmetic mean of 4 lbs/day.

9. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

$$\begin{aligned}\text{TSS: } & 290 \text{ mg/L} - [(290 \text{ mg/L})(0.50)] = 145 \text{ mg/L} \\ & (145 \text{ mg/L})(8.34)(0.0150 \text{ MGD}) = 18 \text{ lbs/day}\end{aligned}$$

A review of the seasonal (April – October) DMR data for the calendar years 2002-2006 inclusively, indicates the monthly average concentration of TSS discharged has ranged from 10 mg/L to 77 mg/L with an arithmetic mean of 38 mg/L. As for the monthly average mass of TSS discharged, the DMR data indicates the range has been from 0.2 lbs/day to 6 lbs/day with an arithmetic mean of 1.2 lbs/day.

The technology based mass and concentration limitations and monitoring requirements for BOD & TSS are being carried forward in this permitting action and are based on a determination by the Department and EPA given the size and type of treatment.

- c. Settleable solids – The previous permitting action established monthly average and daily maximum concentration reporting requirements for settleable solids with a 3/Week monitoring frequency. A review of the DMR data for the period calendar years 2002 – 2006 indicates the monthly average and daily maximum concentrations have been reported as 0.0 ml/L 100 % of the time. Based on the historic data results, the Department is making a determination to reduce the monitoring frequency to 1/Month to be consistent with the monitoring frequencies for BOD and TSS.
- d. Fecal coliform bacteria – The previous permitting action established monthly average (geometric mean) and daily maximum limits of 15 colonies/100 ml and 50 colonies/100 ml respectively, that are consistent with limitations in the National Shellfish Sanitation Program.. The permit was silent as to whether the limitations were effective seasonally (May 15th – September 30th) to be consistent with the time frame in which State law imposes fecal coliform bacteria standards or in effect during the entire discharge season for the BVC, generally April through October. The numeric limitations are being carried forward in this permitting action along with a monitoring frequency of 2/Month. To be consistent with other like permits issued by the Department and consistent with Maine law found at 38 M.R.S.A., Section 465-B(2)(B), this permitting action is establishing May 15th – September 30th as the season in which the limitations are in effect.

A review of the DMR data for the period calendar years 2002 – 2006 indicates the monthly average (geometric mean) fecal coliform bacteria levels discharged have ranged from 1 – 10 colonies/100 mL with an arithmetic mean of 2.4 colonies/100 mL and the daily maximum levels have ranged from 1 – 17 colonies/100 mL with an arithmetic mean of 3.7 colonies/100 mL.

9. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS (cont'd)

- e. Total residual chlorine (TRC) – The previous permitting action established a technology based daily maximum limitation of 1.0 mg/L with monitoring frequency of 3/Week.. Limits on total residual chlorine are specified to ensure attainment of the in-stream water quality criteria for chlorine and that BPT technology is utilized to abate the discharge of chlorine. Permits issued by MEDEP impose the more stringent of the calculated water quality based or BPT based limits. The MEDEP has established a daily maximum best practicable treatment (BPT) limitation of 1.0 mg/L for facilities that disinfect their effluent with elemental chlorine or chlorine based compounds unless the calculated acute water quality based threshold is lower than 1.0 mg/L. For facilities that need to de-chlorinate the discharge to meet water quality based thresholds, the MEDEP has established daily maximum and monthly average best practicable treatment limits of 0.3 mg/L and 0.1 mg/L respectively

Water quality based thresholds for TRC can be calculated as follows:

Parameter	Acute Criteria	Chronic Criteria	Acute Dilution	Chronic Dilution	Acute Limit	Chronic Limit
Chlorine	0.013 mg/L	0.0075 mg/L	250:1	730:1	3.2 mg/L	5.5 mg/L

Example calculation: Acute – $0.013 \text{ mg/L} (250) = 3.2 \text{ mg/L}$

Being that the MEDEP's BPT technology based daily maximum limit of 1.0 mg/L is more stringent than the daily end-of-pipe water quality threshold calculated above, the technology based limit of 1.0 mg/L is being carried forward in this permitting action along with the monitoring frequency of 3/Week.

A review of the DMR data for the period 2002 - 2006 indicates the daily maximum TRC discharged has ranged from <0.01 mg/L to 0.80 mg/L with an arithmetic mean of 0.02 mg/L.

- g. pH – The previous permitting action establishing a BPT pH range limit of 6.0 –9.0 standard units pursuant to Department rule, Chapter 525(3)(III)(c), along with a monitoring frequency of 3/Week. A review of the DMR data for the period calendar years 2002 – 2006 indicates the pH range limitation has never been exceeded. Therefore, this permitting action is reducing the monitoring frequency 1/Week based on the historical data and compliance record.

10. DISCHARGE IMPACT ON RECEIVING WATERS

As permitted, the MEDEP and EPA have determined the existing water uses will be maintained and protected and the discharge will not cause or contribute to failure of the waterbody to meet standards for Class SB classification.

11. PUBLIC COMMENTS

Notice of the draft permit will be placed in a regional Maine newspaper for a minimum 30-day comment period during which time, written comments may be directed to the MEDEP and EPA at the addresses given below. Upon review of the public comments and receipt of Maine DEP Water Quality Certification, EPA will make a final decision whether to issue this permit.

Public notice of this application was made in the Boothbay Register newspaper on or about December 6, 2006. The Department receives public comments on applications until the date final agency action has been taken on applications. Those persons receiving copies of draft permits shall have at least 30 days in which to submit those comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's Rules.

12. CONTACTS

Additional information concerning this permitting action may be obtained from and written comments should be directed to:

Gregg Wood
Division of Water Quality Management
Bureau of Land & Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017
Phone: 207-287-7693
Email: gregg.wood@maine.gov

Doug Corb
US EPA Region I
One Congress Street Suite 1100/CMP
Boston, MA 02114
Phone: 617-918-1565
Email: corb.doug@epa.gov